

09/822,104

T088A/TELNP137USA

REMARKS

Claims 30, 32-41, and 43-49 are currently pending in the subject application and are presently under consideration. Claims 31 and 42 have been canceled. Claims 30, 33, 35-37, 43, 44, and 46 have been amended herein to correct minor informalities and claims 39 and 47-49 have been amended to more clearly define and claim the novel features of the subject application.

Applicant's representative notes with appreciation the Examiner's indication that claims 33, 34, and 41-45 would be allowable if rewritten in independent form to recite features of respective base claims and any intervening claims. Accordingly, independent claim 39 has been amended to incorporate the features previously recited in claim 42, and it is believed that claim 39 (and its corresponding dependent claims) is allowable. As it relates to claims 33 and 34, it is believed such amendments are not necessary in view of the comments and amendments herein. However, applicant's representative reserves the option to recast such claims at a later date if necessary.

A listing of all claims is shown at pages 4-8 of this Reply. In addition, the specification has been amended as indicated at pages 2-3. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 30, 32, 35-38 and 47-49 Under 35 U.S.C. §103(a)

Claims 30, 32, 35-38 and 47-49 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Haas (U.S. 5,566,225) in view of Rackley (U.S. 4,742,357). Withdrawal of this rejection is requested for at least the following reasons. Haas and Rackley, alone or combined, fail to teach or suggest all the features recited in the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. *Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.* The teaching or suggestion to make the claimed

09/822,104

T088A/TELNP137USA

combination and the reasonable expectation of success must be found in the prior art and not based on the Applicant's disclosure. *See In re Paech*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicant's claimed invention relates to a system and method to sustain a TCP connection that deploys transparent, unsolicited keepalive packets at predetermined intervals. In particular, independent claim 30 recites, "the processor *of the network device* periodically *receives an unsolicited transparent keepalive packet from the mobile communication unit* at predetermined intervals, the keepalive packet serving to reset the predetermined period of time such that the network device does not end the established connection." Independent claim 47 (and similarly independent claim 49) recites, "transmitting an *unsolicited keepalive packet from the mobile communication unit to the network device*, the keepalive packet serving to reset the predetermined period of time so that the network device does not end the connection and is transparent to the network device." Independent claim 48 recites, "the processor *of the mobile communication unit* transmits a *transparent, unsolicited keepalive packet to the network device*, the keepalive packet serving to reset the predetermined period of time so that the network device does not end the established connection." The cited references do not teach or suggest these novel features.

Haas relates to a wireless data communications system for detecting a disabled condition and simulating a functioning mode in response to detection. In particular, Haas can be utilized to allow a session to remain active during an inoperative condition or disruption of the wireless link by invoking Agents to simulate the behavior of Application Processes in order to prevent the system from noticing the inoperative condition and terminating the session. (Col. 2, ll. 35-65). Haas invokes a Local Agent to run on the mobile unit, and a Network-Based Agent to run on the host network. (Col. 2, ll. 41-45). When an inoperative condition occurs, the Local Agent (which resides on the mobile unit) will respond to keepalive packets from the Application Process that runs on the mobile unit. (Col. 4, ll. 9-11). Similarly, the Network-Based Agent (which resides on the host network) will respond to keepalive packets from the Application Process that runs on the host network. (Col. 4, ll. 11-13). Furthermore, Agents send keepalive packets in "response to" actions of the Application Process running local to the Agent; therefore, this activity is solicited. (Col. 4, line 11; col. 4, line 12; col. 6, line 36). Finally, if the wireless link is restored from its inoperative condition, the Agents resynchronize. (Col. 6, ll. 45-50). Resynchronization

09/822,104

T088A/TELNP137USA

can prevent data loss and is necessary because of the possible responses sent by the Agents during the inoperative condition that, for example, may have incremented the data packet sequence.

Rackley relates to a stolen object location system wherein numerous methods of tracking stolen objects are disclosed. In particular, one such method utilizes a "passive" wireless connection to relay information about an object's location. More particularly, this passive connection is sustained *via* keepalive signals from a base station. Otherwise, if the keepalive signals are not received for any reason, the mobile unit system will terminate passive mode and transmit an alarm message. (See col. 6, lines 1-14).

Independent Claim 30

Neither Haas nor Rackley teach or suggest, "the processor of the network device periodically *receives an unsolicited transparent keepalive packet from the mobile communication unit ...*" as recited in independent claim 30. Instead, Haas discloses the host network receives a response to keepalive packets (e.g., an Acknowledgement (ACK)) from the Network-Based Agent, which itself resides on the host network. Therefore, the host network of Haas does not receive keepalive packets, but instead receives ACKs, or responses to keepalive packets; the host network does not receive the packets from the mobile unit, but instead from an Agent that runs locally on the host network; and the packets are not unsolicited, but instead in response to Application Process activity. Furthermore, because Haas requires resynchronization after an inoperable condition is corrected, the reference does not teach or suggest the activity is transparent. Rackley, which discloses keepalive signals sent at an interval slightly less than a predetermined timeout value of a keepalive timer, does not make up for the aforementioned deficiencies of Haas. These references, either alone or in combination, fail to teach or suggest the processor of the network device periodically receives an unsolicited transparent keepalive packet from the mobile communication unit at predetermined intervals, the keepalive packet serving to reset the predetermined period of time such that the network device does not end the established connection.

09/822,104

T088A/TELNP137USA

Independent Claims 47 and 49

Additionally, neither of the cited references teach or suggest, "transmitting an *unsolicited keepalive packet from the mobile communication unit to the network device...*" as recited in independent claim 47 (and similarly independent claim 49). In contrast, Haas discloses that a Network-Based Agent responds to a keepalive packet from an Application Process running on the host network by sending an ACK. Hence, the Network-Based Agent of Haas does not transmit a keepalive packet to the host network, but instead sends an ACK to the host network. Moreover, the data sent to the network is not transmitted from the mobile unit, but instead from an Agent, located locally to the host network. In addition, the ACK packet sent by the Agent is in response to a keepalive packet from the network, and is, therefore, not unsolicited. Rackley does not cure the deficiencies of Haas. Accordingly, the references, even when combined, do not teach or suggest transmitting an *unsolicited keepalive packet from the mobile communication unit to the network device*, as recited in independent claim 47 (and similarly in independent claim 49).

Independent Claim 48

Neither Haas nor Rackley teach or suggest, "the processor *of the mobile communication unit* transmits a *transparent, unsolicited keepalive packet to the network device...*" as recited in independent claim 48. Rather, Haas discloses a Local Agent (which resides locally to the mobile unit) sends an ACK to the mobile unit in response to a keepalive packet from the mobile unit when the Agent detects that the wireless network is inoperable. The Local Agent "infers" that the wireless network is inoperable when the Application Process located on the mobile unit has not received an ACK from the host network within a predetermined time period; or when the Local Agent notices that no keepalive packets have been received by the mobile unit within a predetermined time. In the former case, the Local Agent sends an ACK in response to the unanswered keepalive packet sent from the mobile unit, demonstrating that the data from the Local Agent is not unsolicited. In the latter case, the Local Agent may send a keepalive packet to the Application Process running on the mobile unit, however, such an action does not teach or suggest sending an unsolicited keepalive packet *to the network device* that is located remote from both the Local Agent and the mobile unit. Furthermore, because Haas requires resynchronization between the Local Agent and the Network-Based Agent, in the event that the

09/822,104

T088A/TELNP137USA

connection is restored, the activity of the respective Agents is not transparent to the host network, but instead requires resynchronization. Rackley is silent regarding these novel features and does not make up for the deficiencies of Haas.

Accordingly, Haas alone or in combination with Rackley does not teach or suggest all the features of the subject claims. Based on at least the foregoing, this rejection should be withdrawn and the subject claims allowed.

II. Rejection of Claims 39, 40, and 46 Under 35 U.S.C. §103(a)

Claims 39, 40, and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Haas in view of Dillon (U.S. 5,995,726). Applicant's representative requests that this rejection be withdrawn for at least the following reasons. Haas, alone or in combination with Dillon, fails to teach or suggest all features of the subject claims.

Independent claim 39 (from which claims 40 and 46 depends) recites a *keepalive packet for use in a communication system ... comprising ... a sending sequence field comprising a number one less than a sending sequence number expected by the network device*. It was conceded in the office action that the cited references do not teach or suggest such novel features. Accordingly, it is requested that this rejection be withdrawn and the subject claims allowed.

09/822,104

T088A/TELNP137USA

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [TELNP137USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

AMIN & TUROCY, LLP


Patricia S. Murphy
Reg. No. 55,964

AMIN & TUROCY, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731